

**AMENDMENTS TO THE CLAIMS**

1. (Withdrawn) A method for identifying an agent capable of modulating expression of CYP2S1 by a skin cell, comprising the steps of:

- a) contacting a test agent with said cell;
- b) incubating said cell under conditions which are conducive to enable expression of said CYP2S1 gene when in the absence of the test agent; and
- c) detecting a different level of expression of said CYP2S1 gene compared to CYP2S1 expression in the absence of the test agent.

2-14. (Cancelled)

15. (Previously presented) The method according to claim 35 wherein detecting the level of CYP2S1 is carried out using an antibody specifically reactive to CYP2S1.

16. (Previously presented) The method according to claim 35 wherein detecting the level of CYP2S1 is detecting the level of CYP2S1 mRNA using quantitative real time PCR analysis.

17-31. (Cancelled)

32. (Withdrawn) A method of preventing, treating or ameliorating in a subject a skin condition related to increased or decreased CYP2S1 expression in skin, which comprises administering to the subject CYP2S1, a vector capable of expressing CYP2S1, or an agent capable of modulating expression of CYP2S1 in skin tissue thereby modulating the CYP2S1 expression in skin.

33. (Withdrawn) A method of diagnosing a skin condition associated with increased or decreased expression of CYP2S1, or a predisposition to a skin condition associated with increased or decreased expression of CYP2S1 comprising

detecting a level of CYP2S1 in a test skin sample and  
comparing said level against a normal control, wherein an increase or decrease in the CYP2S1 level in the test skin sample as compared to the normal control is indicative of said skin condition or said predisposition to a skin condition.

34. (Withdrawn) A method of diagnosing in an individual a skin condition associated with increased or decreased expression of CYP2S1 or a predisposition to a skin condition associated with increased or decreased expression of CYP2S1, comprising

detecting in a skin cell of the individual a polymorphism in a CYP2S1 gene or upstream sequence thereof, which affects expression of CYP2S1,

wherein detection of the polymorphism is indicative of said skin disorder or said predisposition thereto.

35. (Currently Amended) A method of detecting effectiveness of a skin treatment to be administered to a patient suffering from a skin condition, comprising the steps of:

a) detecting a level of cytochrome P450 2S1 (CYP2S1) in a first sample of diseased skin from the patient prior to administration of the skin treatment;

b) administering said skin treatment to the diseased skin of the patient; and

c) detecting an increase or decrease in the level of CYP2S1 in a sample of the treated diseased skin, extracted from a location adjacent to the site of extraction of the untreated first sample of diseased skin in a), the treated first sample compared to the untreated first sample in a) or a second sample of untreated diseased skin, extracted from a location adjacent to the site of extraction of the sample of treated diseased skin, from the patient, wherein the skin treatment is effective if CYP2S1 levels increase or decrease.

36. (Currently Amended) A method of detecting whether a subject is likely to respond to a skin treatment with a chemical which is metabolisable by cytochrome P450 2S1 (CYP2S1), comprising the steps of:

a) obtaining a first sample of diseased skin and a second sample of non-diseased skin from a subject; and

b) detecting the level of CYP2S1 in the first and second samples,  
wherein ~~an increase~~ a higher ~~in the~~ CYP2S1 level in the first sample compared to the second sample is indicative of a subject who may respond favourably to said skin treatment.

37. (Canceled)

38. (Withdrawn) A method of improving effectiveness of a skin treatment being administered to a subject comprising the steps of

a) detecting a level of CYP2S1 in the skin of said subject; and

b) either increasing or decreasing the level of CYP2S1 in the skin of said subject receiving said skin treatment.

39. (Canceled)

40. (New) The method according to claim 36 wherein detecting the level of CYP2S1 is carried out using an antibody specifically reactive to CYP2S1.

41. (New) The method according to claim 36 wherein detecting the level of CYP2S1 is detecting the level of CYP2S1 mRNA using quantitative real time PCR analysis.